I. IN THE CLAIMS

Please cancel claims 21-41.

Please add the following claims:

42. A method of screening a patient perioperatively to determine a risk for complications during a surgical procedure associated with known genetic variations comprising:

a) obtaining a sample from a perioperative subject, said perioperative subject being a patient scheduled for a surgical procedure that has not yet completed said surgical procedure; and

b) subjecting said sample to an assay for detecting two or more nucleic acid genetic markers in two or more genes to generate a genomic profile for use in selecting a perioperative course of action, wherein said subjecting step occurs after said patient is scheduled for surgery but before completion of said surgical procedure, thereby determining a risk for complications during said surgical procedure.

43. The method of Claim 42, wherein said course of action comprises administration of anesthesia during a surgical procedure.

44. The method of Claim 43, wherein said surgical procedure is non-invasive surgery.

45. The method of Claim 43, wherein said surgical procedure is invasive surgery.

46. The method of Claim 42, wherein said course of action comprises administration of anesthesia during a medical procedure.

47. The method of Claim 42, wherein said genomic profile comprises information pertaining to a pharmacodynamic risk.

48. The method of Claim 42, wherein said genomic profile comprises information pertaining to a pharmacokinetic risk.

49. The method of Claim 42, wherein said genomic profile comprises a presymptomatic diagnosis.

50. The method of Claim 42, wherein said genomic profile comprises information pertaining to differential diagnosis of co-existing diseases.

51. The method of Claim 42, wherein said two or more nucleic acid genetic markers comprise mutations in two or more genes, said genes selected from the group consisting of *BChE*, *CYP2D6*, *MTHFR*, *MTR*, *CBS*, *F2*, *F5*, *RYR1*, *CACNA1S*, and *CPT2*.

52. The method of Claim 51, wherein said two or more nucleic acid genetic markers comprise 5 or more mutations in two or more genes.

53. The method of Claim 51, where in said two or more nucleic acid genetic markers comprise 10 or more mutations in two or more genes.

54. The method of Claim 42, further comprising the step of:

c) using said genomic profile for selection of conditions for a surgical procedure carried out on said patient.

55. A method for selecting conditions for a surgical procedure by screening a patient perioperatively to determine a risk for complications during a surgical procedure associated with known genetic variations comprising:

a) providing a sample from a perioperative subject; and

b) subjecting said sample to an assay for detecting two or more nucleic acid genetic markers in two or more genes known to be associated with perioperative phenotypes to generate a genomic

profile for use in selecting a surgical procedure treatment course of action; and

c) subjecting said subject to a surgical procedure.

56. The method of Claim 55, wherein said genetic markers are associated with a pharmacological response.

57. The method of Claim 56, wherein said pharmacological response is to an anesthetic.

58. The method of Claim 56, wherein said pharmacological response is to drugs used in anesthetic practice.

59. The method of Claim 55, wherein said two or more nucleic acid genetic markers comprises a mutation in two or more genes, said genes selected from the group consisting of *BChE, CYP2D6, MTHFR, MS, CBS, F2, F5, RYR1, CACNA1S, and CPT 2.*

60. The method of claim 59, wherein said two or more nucleic acid genetic markers comprises 5 or more mutations in two or more genes.

61. The method of claim 59, wherein said two or more nucleic acid genetic markers comprises 10 or more mutations in two or more genes.

62. A method of screening a patient perioperatively to determine a risk for complications during a surgical procedure from known genetic variations comprising:

a) obtaining a sample from a perioperative subject; and

b) subjecting said sample to an assay for detecting two or more nucleic acid genetic markers in two or more genes clinically associated with two or more conditions selected from the group consisting of butyrylcholinesterase deficiency, impaired debrisoquine metabolism, thrombosis, and malignant hyperthermia to generate a genomic profile,

wherein said genomic profile provides information for use by a physician in determining a risk for complications during a surgical procedure.

63. The method of Claim 62, wherein said course of action comprises administration of anesthesia during a surgical procedure.

64. The method of Claim 63, wherein said surgical procedure is non-invasive surgery.

65. The method of Claim 63, wherein said surgical procedure is invasive surgery.

66. The method of Claim 62, further comprising the step of:

c) using said genomic profile for selection of conditions for a surgical procedure carried out on said patient.

67. The method of Claim 62, wherein the said two or more nucleic acid genetic markers comprises 5 or more mutations in two or more genes.

68. The method of Claim 62, wherein the said two or more nucleic acid genetic markers comprises 10 or more mutations in two or more genes.

69. A method of screening a patient perioperatively to determine a risk for complications during a surgical procedure from known genetic variations comprising:

a) obtaining a sample from a perioperative subject; and

b) subjecting said sample to an assay for detecting two or more nucleic acid genetic markers in two or more genes clinically associated with two or more conditions selected from the group consisting of butyrylcholinesterase deficiency and impaired debrisoquine metabolism to generate a genomic profile, wherein said genomic profile provides

information for use by a physician in determining a risk for complications during a surgical procedure.

70. A method for selecting an appropriate anesthesia treatment during surgery, comprising:

a) providing a sample from a perioperative subject; and

b) subjecting said sample to an assay that detects a first marker in a first gene and a second marker in a second gene to generate assay results, wherein said markers are known to be associated with an adverse response to anesthesia treatment;

c) subjecting said subject to a surgical procedure, wherein said assay results are consulted in selecting an appropriate anesthesia treatment for said subject.

71. The method of Claim 70, wherein said selecting comprises selection of dosages of anesthesia.

72. The method of Claim 70, wherein said selecting comprises selection of anesthesia compounds.

73. The method of Claim 70, wherein said selecting comprises selection of monitoring procedures.

REMARKS

Claims 1-20 were filed in the original case. Claims 1-20 were cancelled and claims 21-41 were added in a previous amendment. Claims 21-41 are cancelled in the present amendment. These cancellations are made without acquiescing to the Examiner's rejections, but are made to further prosecution and Applicant's business interests. Applicant reserves the right to prosecute Claims 21-41 (or similar claims) in the future. Claims 42-73 are added with the present amendment. Therefore claims 42-73 are currently pending.